**International Civil Aviation Organization**

**Vacancy Notice**

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**POSITION INFORMATION**

<table>
<thead>
<tr>
<th>Post Title:</th>
<th>Monitoring &amp; Oversight Tools Analyst, ANB</th>
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<tbody>
<tr>
<td>Vacancy Notice:</td>
<td>2019/25/P 110037</td>
</tr>
<tr>
<td>Level:</td>
<td>P-3</td>
</tr>
<tr>
<td>Posting Period:</td>
<td>06 August 2019 – 08 September 2019</td>
</tr>
<tr>
<td>Duty Station:</td>
<td>Montréal</td>
</tr>
<tr>
<td>Date for entry on duty:</td>
<td>After 08 September 2019</td>
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**Special Notice:**
The ICAO Assembly recently reaffirmed its commitment to enhancing gender equality and the advancement of women by supporting UN Sustainable Development Goal 5 “Achieve gender equality and empower all women and girls.”

Female candidates are strongly encouraged to apply for ICAO positions, especially in the Professional and higher level categories.

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**THE ORGANIZATIONAL SETTING**

Air Navigation Bureau (ANB) in ICAO is responsible for providing technical guidance to the Air Navigation Commission (ANC), the Council, and the Assembly. The ANB provides technical expertise in aviation-related disciplines to States, industry and all elements of the Organization. The Bureau is also responsible for maintaining and implementing the Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP), including its aviation system block upgrades as well as producing yearly safety and air navigation status reports. The Bureau develops technical studies and proposals for Standards and Recommended Practices (SARPs), and Procedures for Air Navigation Services (PANS) for further processing by the governing bodies of ICAO. The Bureau also develops related procedures and guidance material. The Bureau also manages the Universal Safety Oversight Audit Programme (USOAP) that monitors all Member States on a continuous basis.

Through USOAP, the Bureau is responsible for the identification of safety deficiencies in Member States by conducting various USOAP activities such as safety oversight audits and ICAO Coordinated Validation Missions (ICVMs), and assessing associated safety risks. It is also responsible for reporting on audit findings and for determining the impact on aviation safety arising from the lack of effective implementation of the critical elements of a safety oversight system. Having completed a cycle of audits under the Comprehensive Systems Approach (CSA) pertaining to all safety-related provisions in all safety-related Annexes to the Convention on International Civil Aviation (Doc 7300) the Programme methodology has now evolved from a cyclic approach to a continuous monitoring approach.

The incumbent will report to the Chief, Oversight Support Unit (C/OSU). S/he will consult with the Audit Management Officer in order to receive direction on project priorities, strategic direction and technical issues. S/he will also collaborate closely with officers from the Oversight Audit Section (OAS), Aviation Security Audit Section (ASA), and other users of the tools developed and maintained by the team in order to define and document business and technical specifications. The incumbent will also act as Audit Management Officer in his/her absence.

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**MAJOR DUTIES AND RESPONSIBILITIES**

**Function 1 (incl. Expected results)**

- **Supports the effective implementation of USOAP CMA Online Framework (OLF) business process automation,** achieving results such as:
  - Coordinate and liaise with technical and administrative staff of the USOAP CMA programme in order to analyse new and/or modified business processes.
  - Translate business requirements to functional specifications for software development.
  - Design data models that represent and support business requirements.
  - Support the Audit Management Officer by providing necessary technical input to develop project plans for major additions and/or modifications to the OLF.
• Improve the CMO Quality Management System by applying quality assurance techniques and participating in the conduct of internal audits, in accordance with the ISO requirements.
• Conduct USOAP CMA framework familiarization training and other USOAP-related subjects with State National Continuous Monitoring Coordinators (NCMCs) as well as with staff from ICAO Bureaus and Regional Offices.
• Ensure data in the Electronic Filing of Differences (EFOD) database is updated concurrently with new amendments to the Annexes.

**Function 2 (incl. Expected results)**

**Supports the effective implementation of Universal Security Audit Programme (USAP) business process automation**, achieving results such as:
• Coordinate and liaise with technical and administrative staff of USAP in order to analyse new and/or modified business processes.
• Translate business requirements to functional specifications for software development.
• Design data models that represent and support business requirements.
• Support the Audit Management Officer by providing necessary input to develop project plans for major additions and/or modifications to the USAP OLF.
• Conduct USAP OLF familiarization training for staff from ICAO ASA Section.

**Function 3 (incl. Expected results)**

**Develop and maintain, the electronic tools related to the USOAP / USAP CMA OLF**, achieving results such as:
• Formulate Agile/Scrum tasks to be performed for OLF development/enhancement projects.
• Design components and patterns required for OLF projects.
• Develop prototypes, where deemed necessary by the Audit Management Officer.
• Write clear and concise code using the adopted methodologies and tools.
• Verify functionality by perform unit and performance testing and support to user acceptance testing.
• Perform complete Unit and Integration testing and deliver complete documentation during the application development life cycle (SDLC).
• Maintain and document DevOps Continuous Integration and Continuous Delivery processes for USOAP/USAP software.

**Function 4 (incl. Expected results)**

**Supports development and implementation of safety/security data exchange** achieving results such as:
• Maintain an automated data exchange mechanism, allowing States to seamlessly use and manage their USOAP CMA data with other Safety Management platforms they employ.
• Promote the effective use of USOAP/USAP CMA data in other ICAO platforms, ensuring useful analysis and strategic information is available to decision makers.
• Explore possibilities of leveraging OLF modules to other monitoring/oversight functions (e.g. World Food Programme Online Framework)

**Function 5 (incl. Expected results)**

**Provides advice, guidance and technical expertise on IT related matters to Monitoring and Oversight management**, achieving results such as:
• Exploring and evaluating new software tools and their possible inclusion in the team’s standard toolset.
• Evaluate new hardware options and advise the Audit Management Officer on their use in existing or future applications.
• Identify technical issues and provide workarounds or solutions.
• Coach, when necessary the consultants employed by the MO development team.
• Act as representative of MO development with technical personnel of ETS/BTS sections.

**Function 6 (incl. Expected results)**

**Supports the maintenance and enhancement of the ICAO Reporting Management System (IRMS) application**, achieving results such as:
• Coordinate with ICT on enhancements, scalability and integration of the IRMS application, with a view to it becoming a cornerstone of organisation-wide processes.
- Design and lead enhancements to IRMS, adding further functionality to meet full Annex requirements.
- Collaborate with Internet Protocol Suite ANB/IPS staff to ensure IRMS meets the functional requirements of Annex updates.
- Ensure data consistency between IRMS Annex amendments and the EFOD module.
- Ensure support for IRMS user community

Function 7 (incl. Expected results)
Perform other related duties, as assigned.

QUALIFICATIONS AND EXPERIENCE

Education
A first level university degree, preferably in computer-engineering, or in a related field, is required. A degree from a Technical College in the fields of Computer Sciences or Analysis/Application Development may be accepted in lieu of a University degree

Professional experience

Essential
- Minimum 5 years of experience and proficient in C#.NET, ASP.NET Web Forms, ASP.NET MVC, .NET Framework 3.5+ and Entity Framework 5+.
- Minimum 3 years of experience and proficient in SQL Server 2012 or higher, relational database design (utilizing normalization and relational integrity principles) and T-SQL programming of stored procedures and other database objects.
- Experience with intuitive UX design and development using AJAX, HTML5, CSS3, Bootstrap4, JavaScript, JQuery or Vue.JS.
- Experience in current software development methodologies, namely Agile/SCRUM, including delivery of software packages and upgrades, and software design
- Significant experience in Microsoft Visual Studio 2017 IDE, SQL Server Management Studio, Team Foundation Server and SQL Server Reports (RDL or RDLC).
- Experience in systems integration, integration of third party SDKs and implementation of WFC Web Services, RESTful APIs, OAuth, JSON.
- Experience in Object Oriented and SOLID software design principles.
- Experience in supporting .NET applications in production.

Desirable
- Experience with Open XML, .NET Core, .NET Core MVC and Entity Framework Core.
- Experience with developing mobile applications based on iOS, Windows and Android platform.
- Experience with Xamarin or Windows Universal Platform.

Language

Essential
- Fluent reading, writing and speaking abilities in English.

Desirable
- A working knowledge of a second language of the Organization (Arabic, Chinese, French, Russian, or Spanish).

Competencies

Professionalism: Advanced knowledge of internet based cloud concepts, more specifically Windows Azure. Good knowledge of mobile cross platform development approach, more specifically Windows 10 Universal Windows Application and Xamarin. Excellent knowledge of ICAO universal safety oversight audit programme (USOAP CMA), Very good knowledge of ICAO functions and organization, international aviation organizations, Regional Safety Oversight Organizations (RSO0s), Cooperative Development of Operational Safety and Continuing Airworthiness Programmes (COSCAPs), etc. Good knowledge of related aviation disciplines such as: accident investigation, operations, personnel licensing/training, air traffic management, aeronautical information management, etc. and their interrelationship. Knowledge of ISO 9001:2008 (quality management systems). Shows pride in work and in achievements; demonstrates professional competence and mastery of subject matter; is conscientious and efficient in meeting commitments, observing deadlines and achieving
results; is motivated by professional rather than personal concerns; shows persistence when faced with difficult problems or challenges; remains calm in stressful situations.

**Teamwork:** Works collaboratively with colleagues to achieve organizational goals; solicits input by genuinely valuing others’ ideas and expertise; is willing to learn from others; places team agenda before personal agenda; supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position; shares credit for team accomplishments and accepts joint responsibility for team shortcomings.

**Communication:** Speaks and writes clearly and effectively; listens to others, correctly interprets messages from others and responds appropriately; asks questions to clarify, and exhibits interest in having two-way communication; tailors language, tone, style, and format to match the audience; demonstrates openness in sharing information and keeping people informed.

**Planning and Organizing:** Develops clear goals that are consistent with agreed strategies; identifies priority activities and assignments; adjusts priorities as required; allocates appropriate amount of time and resources for completing work; foresees risks and allows for contingencies when planning; monitors and adjusts plans and actions as necessary; uses time efficiently.

**Creativity:** Actively seeks to improve programmes or services; offers new and different options to solve problems or meet client needs; promotes and persuades others to consider new ideas; takes calculated risks on new and unusual ideas; thinks "outside the box"; takes an interest in new ideas and new ways of doing things; is not bound by current thinking or traditional approaches.

**Technological Awareness:** Keeps abreast of available technology; understands applicability and limitations of technology to the work of the office; actively seeks to apply technology to appropriate tasks; shows willingness to learn new technology.

### CONDITIONS OF EMPLOYMENT

It should be noted that this post is to be filled on a fixed-term basis for an initial period of three years (first year is probationary for an external candidate).

ICAO staff members are international civil servants subject to the authority of the Secretary General and may be assigned to any activities or offices of the Organization within the duty station.

ICAO staff members are expected to conduct themselves in a manner befitting their status as international civil servants. The Standards of Conduct for the International Civil Service adopted by ICAO, which are applicable to all staff members, are defined in the ICAO Service Code (Staff Regulations).

ICAO offers an attractive benefit package to its employees in accordance with the policies of the International Civil Service Commission (ICSC).

The statutory retirement age for staff entering or re-entering service after 1 January 2014 is 65. For external applicants, only those who are expected to complete a term of appointment will normally be considered.

<table>
<thead>
<tr>
<th>Remuneration:</th>
<th>Level P-3</th>
<th>Rate</th>
<th>Net Base Salary per annum</th>
<th>+</th>
<th>Post Adjustment (net) per annum(*)</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>USD 60,233</td>
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<td>USD 23,972</td>
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(*) Post Adjustment is subject to change.

### HOW TO APPLY

Interested candidates must complete an on-line application form. To apply, please visit ICAO’s e-Recruitment website at: [https://careers.icao.int](https://careers.icao.int).

### NOTICE TO CANDIDATES

ICAO does NOT charge any fees or request money from candidates at any stage of the selection process, nor does it concern itself with bank account details of applicants. Requests of this nature allegedly made on behalf of ICAO are fraudulent and should be disregarded.